

What is claimed is:

1. A method for manufacturing a conduit for use in placing a target vessel of a patient's vascular system in fluid communication with a heart chamber containing blood, the method comprising:
  - (a) providing a biocompatible material suitable for use in delivering blood from one location to another location;
  - (b) forming the biocompatible material into a conduit comprising first and second portions disposed transverse to each other and having lumens in fluid communication;
  - (c) forming the first conduit portion with at least one inlet configured to be positioned adjacent tissue so as to be in fluid communication with a heart chamber containing blood, and providing at least a part of the first conduit portion with sufficient rigidity to prevent collapse during myocardial contraction when disposed in or secured to myocardial tissue; and
  - (d) forming the second conduit portion with at least one outlet configured to be placed at least partially within the lumen of a target vessel in fluid communication with the vessel, and providing at least a part of the second conduit portion with sufficient resiliency to allow the second conduit portion to substantially conform to the contour of the target vessel.
2. The method of claim 1, wherein the biocompatible material is a moldable material and step (b) is performed by molding the material into a conduit configuration including first and second portions disposed transverse to each other.
3. The method of claim 2, wherein the moldable material comprises a silicone polymer.
4. The method of claim 2, wherein steps (b), (c) and (d) are performed to mold the material into a conduit including first and second portions that are substantially perpendicular.

5. The method of claim 2, wherein steps (b), (c) and (d) comprise an injection molding procedure.

6. The method of claim 1, wherein the biocompatible material is non-moldable material and step (b) is performed by fabricating the material into a conduit configuration.

7. The method of claim 1, further comprising providing the first conduit portion with a device configured to be positioned at least partially in tissue that is disposed adjacent a heart chamber containing blood.

8. The method of claim 1, further comprising providing at least one of the first and second portions of the conduit with a reinforcing component.

9. The method of claim 1, wherein step (b) comprises forming the second conduit portion with two outlets facing in different, substantially opposite directions.

10. A method for manufacturing a conduit for use in placing a target vessel of a patient's vascular system in fluid communication with a source of blood, the method comprising steps of:

(a) providing a mold having a cavity configured to form a conduit including first and second portions disposed transverse to each other, wherein a conduit corresponding to the cavity is suitable for use in placing a source of blood in fluid communication with the lumen of a target vessel;

(b) placing a biocompatible moldable material in the mold cavity;

(c) subjecting the material to conditions that mold the material into a conduit having a desired configuration; and

(d) separating the mold and the conduit.

11. The method of claim 10, wherein step (b) comprises injecting the biocompatible moldable material into the mold cavity and removing any gas from the material.

12. The method of claim 10, wherein the molded conduit is generally T-shaped with the first and second portions of the conduit substantially perpendicular.

13. The method of claim 10, wherein the biocompatible moldable material comprises a silicone polymer.

14. The method of claim 13, wherein the silicone polymer is polydimethylsiloxane.

15. A method for manufacturing a conduit for use in placing a target vessel of a patient's vascular system in fluid communication with a source of blood, the method comprising steps of:

(a) providing a mold having a cavity including first and second portions disposed transverse to each other;

(b) positioning a mandrel in the mold cavity, the mandrel having first and second portions substantially corresponding to the first and second portions of the mold cavity;

(c) forcing a moldable material into the mold cavity and around the first and second portions of the mandrel into the first and second portions of the mold cavity;

(d) subjecting the material to conditions sufficient to set the material in a desired configuration;

(e) removing the mandrel from the mold; and

(f) separating the mandrel and the material to produce a conduit comprising first and second portions that are disposed transverse to each other and have lumens in fluid communication with each other.

16. The method of claim 15, wherein the moldable material is a silicone polymer, and step (d) comprises heating the material to a temperature sufficient to set the material in a desired configuration.

17. The method of claim 15, further comprising applying a release agent to the mandrel prior to performing step (c).

18. A method for manufacturing a conduit for use in a medical procedure that places a target vessel in fluid communication with a source of blood in a patient's body, the method comprising steps of:

(a) providing a mandrel including first and second portions disposed transverse to each other, the first and second portions of the mandrel defining at least one external surface corresponding to an interior surface of a desired conduit configuration;

(b) disposing a biocompatible moldable material on the external surface of the mandrel;

(c) subjecting the material to conditions that mold the material into a conduit having the desired configuration;

(d) separating the conduit from the mandrel.

19. The method of claim 18, further comprising placing a release coating on the mandrel, and wherein step (b) is performed by dipping the coated mandrel in the biocompatible moldable material.

20. The method of claim 18, wherein the mandrel is generally T-shaped and the conduit has first and second portions that are substantially perpendicular.

21. The method of claim 18, wherein the mandrel is generally T-shaped with the first and second portions defining a curved path including at least two bends.

22. The method of claim 18, further comprising attaching a reinforcing component to at least a portion of the conduit to prevent collapse or kinking of the conduit.

23. The method of claim 18, further comprising packaging and sterilizing the conduit to provide a sealed, sterile blood delivery device ready to be used in a cardiovascular procedure.

24. A method for manufacturing a conduit for use in placing a target vessel of a patient's vascular system in fluid communication with a source of blood, the method comprising steps of:

(b) forming biocompatible material into a conduit comprising first and second portions disposed transverse to each other and having lumens in fluid communication;

(c) forming the first conduit portion with at least one inlet configured to be placed in fluid communication with a heart chamber containing blood, and providing at least a part of the first conduit portion with sufficient rigidity to prevent collapse during myocardial contraction when disposed in or secured to myocardial tissue;

(d) forming the second conduit portion with at least one outlet configured to be placed at least partially within the lumen of a target vessel in fluid communication with the vessel;

(e) carrying out step (d) so as to form the first conduit portion with a full tubular configuration that extends substantially 360° in cross-section, and the second conduit portion with a partial tubular configuration that extends less than 360° in cross-section; and

(e) separating the mold and the conduit.

25. The method of claim 24, wherein the first and second portions of the conduit are substantially round in cross-section, the first conduit portion has a wall that extends 360° and forms a fully closed circumference, and the second conduit portion has a wall that extends less than 180° and forms a partially closed circumference.

26. The method of claim 25, wherein the wall of the second conduit portion extends less than 120°.

27. The method of claim 24, further comprising providing the second conduit portion with a reinforcing component that extends beyond the wall of the second conduit portion.

28. The method of claim 24, wherein the second conduit portion is formed with a closed circumference and then subjected to a procedure that removes a desired amount of material to form the partial tubular configuration.

29. The method of claim 24, further comprising providing a mold having a cavity configured to form a conduit including first and second portions disposed transverse to each other, placing a biocompatible moldable material in the mold cavity, and molding the material to form a conduit.

30. A mold for forming a conduit for use in placing a target vessel of a patient's vascular system in fluid communication with a heart chamber containing blood, the mold comprising:

a base defining a mold cavity;

wherein the mold cavity has first and second portions configured to form a conduit including first and second portions;

wherein the first and second portions of the mold cavity are disposed transverse to each other to form a conduit with first and second conduit portions in fluid

communication with each other and adapted to place the lumen of a target vessel in fluid communication with a heart chamber containing blood.

31. The mold of claim 30, wherein the first and second portions of the mold cavity define a T-shaped conduit.

32. The mold of claim 30, in combination with a mandrel having first and second portions substantially corresponding to the first and second portions of the conduit and the mold cavity.

33. A method for manufacturing a blood delivery conduit for use in placing a target vessel of a patient's vascular system in fluid communication with a source of blood, the method comprising steps of:

- (a) providing first and second hollow members each of which has a lumen;
- (b) forming an opening that extends into the lumen of the first hollow member;
- (c) positioning one of the first and second ends of the second hollow member adjacent the opening in the first hollow member; and
- (d) joining the one end of the second hollow member to the first hollow member with the lumens of the first and second hollow members sealed together in fluid communication.

34. The method of claim 33, wherein the first and second hollow members are formed of a synthetic vascular graft material selected from the group consisting of polytetrafluoroethylene, expanded polytetrafluoroethylene, Dacron® (polyethylene terephthalate) and polyurethane (polyester and polycarbonate types).

35. The method of claim 34, further comprising providing the first and second hollow members with a support structure to add rigidity to the members.

36. The method of claim 35, wherein the support structure comprises a coating disposed on at least one of the first and second hollow members.

37. The method of claim 33, wherein each of the first and second hollow members has first and second ends, and the opening is located between the first and second ends of the first hollow member.